

ECON 3535

Natural Resource Economics

Spring 2024

Instructor: Sean Strunk

E-mail: Sean.Strunk@colorado.edu

Zoom: <https://cuboulder.zoom.us/j/7136764025>

Office: ECON 313

Class Schedule

- TTH
- Room: MBE 157
- **Attendance is optional**
 - Course content will be posted to Canvas
 - Regular attendance will be helpful for success on exams and assignments

Office Hours

- Monday 9 – 11am, or by appointment
- ECON 313 (drop in welcome!) or zoom (please send an email)

Communication

- The best way to contact me is through email
- I will do my best to get back to you within 24 hours
 - Feel free to send a follow up if I miss your message
- All announcements will be sent with Canvas Announcements

Course Description

This course in natural resource economics will introduce students to the interlinkages between natural resources and the economic system. Classic allocation problems for renewable and nonrenewable resources will be examined. This course will also consider the fundamental role of institutions in shaping natural resource use. Understanding the incentives faced by users of natural resources will allow us to consider market failures and the important question of whether market interventions are justified on economic grounds. Because natural resources play a central role in many current energy and environmental policy debates, this course will also address policy issues related to climate change, renewable energy, transportation, and sustainability.

Textbook

Natural Resource Economics 11e. Tietenberg, Thomas and Lewis, Lynne. A pdf of the book is posted on Canvas – you are not required to purchase the text (used on amazon for \$40).

Breakdown of Points

Unit Summaries: 10%

For each unit you will submit a 2-page summary (double – spaced, size 12 font) of the unit demonstrating your understanding of the presented material in lecture and corresponding book chapters. The document is expected to summarize the unit material covered and discuss open and unresolved questions or debates related to the unit. In addition, there may be a math question like ones covered lecture. This will be graded for completion and correctness (math questions). Submissions that are not relevant to unit material will be penalized – you should directly reference lecture material and book content.

Assignments: 30%

There will be one math assignment and one writing assignment (each 15%). You may work individually or work with 1 other person for both (groups of 2: only 1 person needs to submit, but BOTH names need to be present to receive credit). You will receive more information about these during the semester.

1) The math assignment will involve using economic models to solve problems related to natural resource allocation. These will be graded for correctness.

2) The writing assignment will ask you to choose a policy of interest and present to an imaginary policy maker using economic concepts that we discuss in the course. This will require you to discuss the trade-offs that may occur and any potential effects (good and/or bad!) of the incentives created by the policy. This assignment will be graded based on effort and meeting the guidelines.

Midterm Exam: 30%

The Midterm Exam will cover units 1 – 3. This will contain Multiple Choice and Short Answer questions. Expect to solve some mathematical questions as covered in class. Expected time for this exam is early March (7th ish) – a clear date will be announced 2 weeks before the exam.

Final Exam: 30%

The Final Exam will cover units 4 – 6 (the exam is NOT cumulative). This will contain Multiple Choice and Short Answer questions. Expect to solve some mathematical questions as covered in class. The final exam slot allocated by the university is:

Saturday, May 4	1:30–4 p.m.
-----------------	-------------

Course Material

The six units for the class are listed below:

I. Extraction of non-renewable resources

- Mineral products
- Oil and gas
- Groundwater

II. Extraction of renewable resources

- Fisheries
- Forestry
- Agriculture

III. Property rights and institutions

- Open access
- Common property
- The Resource Curse

IV. Natural resource policy

- Regulating externalities
- Property rights approaches

V. Climate change

- Costs of climate change
- Climate policies
- Technological innovation

VI. Renewable energy

- Power sector
- Transportation sector

General Course Policies

Letter Grades and Policy

- A: ≥ 94 , A-: 90-93.99, B+: 87-89.99, B: 83-86.99, B-: 80-82.99, C+: 77-79.99, C: 73-76.99, C-: 70-72.99, D+: 67-69.99, D: 63-66.99, D-: 60-62.99, F: < 60 .
- Final grades are based on the percentage of possible points you achieved in the course as outlined above.
- Late assignments will be accepted 1 day late for a 30% penalty. Late is 1 minute or 23 hours.

Technology

- **Usage of ChatGPT or other generative text models is not permitted beyond outline construction. Assignments will be given a plagiarism and AI score – if your submitted work flags the system I will setup a meeting to discuss your work. To avoid issues, I recommend making sure all edits are tracked in your text processor (Word or Sheets) so that you have a clear work history.**
- In class technology usage is allowed and encouraged.
 - If your technology is distracting to other students, I reserve the right to disallow its use.
 - If you want to use technology for non-course material, please sit in the back of the classroom – it's your time.

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#) located in C4C or call (303) 492-2277, 24/7.

Free and unlimited telehealth is also available through [Academic Live Care](#). The [Academic Live Care](#) site also provides information about additional wellness services on campus that are available to students.

If you are struggling with your mental health, please reach out and let me know – I will do my best to work with your situation. It is difficult to provide fair (for the rest of the class) accommodations if you wait to notify me till later in the semester.

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation, or political philosophy.

For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#).

Requirements for Infectious Diseases

Members of the CU Boulder community and visitors to campus must follow university, department, and building health and safety requirements and all public health orders to reduce the risk of spreading infectious diseases.

The CU Boulder campus is currently mask optional. However, if masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave class. Students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct & Conflict Resolution. Students who require accommodation because a disability prevents them from fulfilling safety measures related to infectious disease will be asked to follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

For those who feel ill and think you might have COVID-19 or if you have tested positive for COVID-19, please stay home and follow the [further guidance of the Public Health Office](#). For those who have been in close contact with someone who has COVID-19 but do not have any symptoms and have not tested positive for COVID-19, you do not need to stay home.

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you need any disability accommodations for this course, please contact me within the first two weeks of class via email, in addition to providing the documentation through the portal.

[Disability Services](#) determines accommodations based on documented disabilities in the academic environment. If you qualify for accommodations because of a disability, submit your accommodation letter from Disability Services to your faculty member in a timely manner so your needs can be addressed. Contact Disability Services at 303-492-8671 or dsinfo@colorado.edu for further assistance.

If you have a temporary medical condition or required medical isolation for which you require accommodation, please send me an email (Sean.Strunk@colorado.edu). Also see [Temporary Medical Conditions](#) on the Disability Services website.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.

Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: honor@colorado.edu, 303-492-5550. Students found responsible for violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, protected-class discrimination and harassment, and related retaliation by or against members of our community on and off campus.

Visit [OIEC](#) for or more information about university policies, [reporting options](#), and support resources. If you believe you may have been subjected to misconduct, [email OIEC](#) or call 303-492-2127

Faculty and graduate instructors are required to inform OIEC when they learn of any issues related to these policies regardless of when or where they occurred. This ensures that individuals impacted receive information about their rights, support resources, and resolution options. Visit the [Don't Ignore It page](#) to learn more about reporting and support options.

Religious Holidays

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance.

See the [campus policy regarding religious observances](#) for full details.